REMARKS

Below, the applicant's comments are preceded by related remarks of the examiner set forth in small bold font.

> **2. Claims 4, 5, 12, 13, and 25 are rejected under 35 U. S. C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s)contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.**
>
> **According to claims 4 and 12, monitoring the number of data cells produced includes storing at least one data element concerning the data packet currently being processed if it is determined that another port contains a data packet available for processing, wherein this data element allows for subsequent processing of the remainder of the data packet currently being processed. This feature is not described in the specification in adequate detail. The specification therefore fails to enable one skilled in the art to make and use the invention as claimed without undue experimentation. Claims 5 and 13 depend on claims 4 and 12 and are therefore similarly rejected.**

The examiner provides the following additional comments in response to the applicant's arguments:

> **Applicant quotes portions of the specification to support the conclusion that the specification enables the claims. But the quoted portions do not support the claims. For example, for claims 4, 5, 12, and 13, the specification does not state or show that the data elements that are stored allow for subsequent procession of the data packet.**

The applicant respectfully disagrees. For example, on page 8, lines 18-20, the application discloses (emphasis added):

> "In order to facilitate subsequent processing of the first packet's "chunk" remainder, information concerning the first data packet must be stored for later retrieval"

Additional example details are provided on page 8, line 21 to page 9, line 10 as follows (emphasis added):

> "Once it is determined that another port has a data packet available for processing, packet information storage process 52 stores various data elements 54 concerning the data packet currently being processed. These data elements 54 are stored on non-volatile memory 32. Data elements 54 can include

information concerning: the overall length of the data packet currently being processed; the length of the packet remainder to be processed; the length of the portion of the packet that has already been processed; a packet truncation indicator showing that the packet has not been completely processed; or a Packet-Over-Sonet (POS) header for use in optical networks. Accordingly, by storing data elements 54 on non-volatile memory 32, subsequent fragmentation of the remainder of a data packet (not completely fragmented due to cell number limit 33) can be easily achieved."

According to claim 25, the port-switching event is an unbalanced port-loading condition. The specification nowhere describes this feature. The specification therefore fails to enable one skilled in the art to make and use the invention as claimed without undue experimentation.

The examiner provides the following additional comments in response to the applicant's arguments:

Also, with regard to claim 25, the quoted portion fails to state or show that the port switching event is an unbalanced port-loading condition.

The applicant respectfully disagrees.

In addition to the previously provided example on page 10, line 17 to page 11, line 4, another example is given on page 4, lines 4-7 as follows:

"In order to balance the load between ports 20_{1-N} when a large packet is received for processing, a programmable intra-packet switching process is executed..."

A further example is given on page 6, lines 3-5 as follows:

"By setting a limit on the number of cells that can be produced before the port being serviced is switched, port loading can be controlled and reduced."

3. Claims 1-3, 6-11, 14-24, and 26-34 are rejected under 35 U. S. C. 103(a) as being unpatentable over Patel et al. in view of Kothary and Davis et al. With regard to claims 1, 9, 24, 26, 29, and 32, Patel et al. teaches a method, and switch for performing the method, wherein the method comprises polling, in a systematic fashion, a plurality of data ports connected to a network (abstract; column 3, lines 11-33). Patel et al. fails to teach that the polling is done for the purpose of determining whether a data packet is available at each port for processing; and the fragmenting of the available data packet into at least one data cell having a defined size; wherein this fragmentation continues until a user-defined number of cells are generated (which is a port switching event). Kothary teaches polling the input ports to determine whether they each have a packet or cell to send (column 8, lines 14-20).

Kothary teaches fragmenting Ethernet packets into ATM cells (abstract). Davis et al. teaches the routing of no more than B packets during any switch cycle (abstract); the number of packets from any given input port is thus limited to B. It would have been obvious to one of ordinary skill in the art to modify the invention of Patel et al. so that the polling is done for the purpose of determining whether a data packet is available at each port for processing, as in Kothary, and the fragmenting of the available data packet into at least one data cell having a defined size, as in Kothary, wherein this fragmentation continues until a user-defined number of cells are generated, as suggested by Davis et al., because such an arrangement would enable the switch to forward data packets as cells when they are available to the switch, would prevent the switch from spending disproportionately more time serving large packets, and would limit the required bandwidth of the network to which the switch is attached.

The examiner provides the following additional comments regarding claim 1 in response to the applicant's arguments:

Applicant argues that neither Kothary nor Davis teaches the continuation of the fragmentation until a user-defined number of cells are generated. But, as stated in the rejection, this feature is suggested by Davis.

Applicant argues that Kothary does not include fragmenting the data packet into data cells until a port switching event occurs. But the rejection argues that the generation of a user defined number of cells is a port switching event, which is suggested by Davis.

The applicant disagrees. Kotharty alone or in combination with Davis and Patel does not teach or suggest "fragmentation until a user-defined number of cells are generated" as in the applicant's claim 1.

Kothary includes a segmentation unit that "receives an Ethernet packet ... converts it to an ATM transmission and forwards it" (col. 2, lines 62-64). As shown in FIG. 14, the segmentation unit receives an Ethernet packet at the input 32A and places the payload into a FIFO (first in, first out) buffer 166. If multiple frames are received or available for segmentation, each frame will be segmented as a unit. Thus, the fragmentation of a particular packet continues until the packet is completely fragmented and removed from the FIFO buffer and not "until a user defined number of cells are generated."

For the sake of argument, even if Davis were combined with Kothary, it would not result in a process where the fragmentation of a frame or packet continues "until a user-defined number of cells are generated." In particular, Davis does not teach or suggest packet fragmentation. Instead, Davis teaches "routing at most B data packets each switch cycle." Therefore, if Kothary were combined with Davis, the packet would be fragmented as a unit into multiple cells and

subsequently, a limited number of cells would be routed from the switch during a given cycle. Thus, Kothary alone or in combination with Davis and Patel does not teach or suggest fragmentation that "continues until a user-defined number of cells are generated" as in the applicant's claim 1.

Claim 9 includes "a packet fragmentation process, responsive to said port polling process determining that one of said ports contains a data packet, for fragmenting said data packet into at least one data cell having a defined size; wherein said packet fragmentation process continues fragmenting said data packet into said data cells until a user-defined number of cells are generated." Claim 9 is patentable for reasons similar to claim 1.

Claim 21 includes "a packet fragmentation process, responsive to said port polling process determining the availability of said data packet on one of said plurality of ports, for fragmenting said data packet into at least one Asynchronous Transfer Mode (ATM) cell, wherein said packet fragmentation process continues fragmenting said data packet into said data cells until a user-defined number of cells are generated" and is patentable for reasons similar to claim 1.

Claim 24 includes "a packet fragmentation process, responsive to said port polling process determining that one of said ports contains a data packet, for fragmenting said data packet into at least one data cell; wherein said packet fragmentation process continues fragmenting said data packet into said data cells until a port-switching event occurs." As described above, in Kothary "when the segmentation unit receives an Ethernet packet it converts it to an ATM transmission and forwards it" (col. 2, lines 62-64). Korhary segments the cells based on their location in the buffer and does not include fragmenting "said data packet into said data cells until a port-switching event occurs" as in the applicant's claim 24.

Claim 29 includes a product including instructions to "fragment the available data packet into at least one data cell having a defined size; wherein this fragmentation continues until a user-defined number of cells are generated" and is patentable for reasons similar to claim 1.

Claim 32 includes a processor configured to "fragment the available data packet into at least one data cell having a defined size; wherein this fragmentation continues until a user-defined number of cells are generated" and is patentable for reasons similar to claim 1.

With regard to claims 2 and 10 ...

With regard to claims 3 and 11 ...
With regard to claims 6 and 15 ...
With regard to claims 7 and 16 ...
With regard to claims 8 and 14 ...
With regard to claim 17 ...
With regard to claim 18 ...
With regard to claims 19 and 27 ...
With regard to claim 20 ...
With regard to claim 21 ...
With regard to claim 22 ...
With regard to claim 23 ...
With regard to claim 28 ...
With regard to claims 30 and 31 ...
With regard to claim 33 ...
With regard to claim 34 ...

Claims 2-8, 10-20, 22-23, 25-28, 30-31, 33, and 34 are patentable for at least the reasons the claims on which they depend are patentable.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 11/10/4

David L. Feigenbaum
Reg. No. 30,378

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906